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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/069,405	05/29/2002	Jean-Pierre Benoit	03715.0110	3630

7590 01/20/2004  
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EXAMINER

TRAN, THAO T

ART UNIT PAPER NUMBER

1711

DATE MAILED: 01/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/069,405

Applicant(s)

BENOIT ET AL.

Examiner

Thao T. Tran

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet, 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet, 37 CFR 1.78.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Response to Amendment*

1. This is in response to the Amendment received on October 29, 2003. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office Action.
2. Claims 1-40 are currently pending in this application. Claims 22-40 have been newly added.

### *Claim Objections*

3. In view of the prior Office action of 6/27/03, the objection to claims 1-21 has been withdrawn due to the Amendments made thereto.
4. Claim 3 is objected to because of the following informalities: line 2, --wherein-- should be inserted before "the polymer".

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-31 and 33-40 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 95/13799.

WO '799 teaches a process for microencapsulating an active agent (principle) by coacervation, the process consisting of dissolving a polymer in an organic solvent, which

contains the active substance; mixing the polymer/active agent solution (first phase) with another liquid (second phase) using a static mixer; the organic solvent comprising ethyl acetate and an alcohol or a ketone of 1 to 3 carbon atoms; the second phase liquid containing a surfactant, polyvinyl alcohol. The mixture is quenched at 0-4°C with water or an aqueous solution containing a surfactant as that in the second phase liquid (see Figures 1-3; page 22, last paragraph to page 23, 1<sup>st</sup> paragraph; page 26, 2<sup>nd</sup> paragraph; claims 1-49). The stirring is at a speed of 700 rpm and the particle size is 25 microns (see page 55, 1<sup>st</sup> paragraph; page 59, Example 15).

With respect to the concentration of the surfactant in the curing agent, WO '799 teaches a concentration of 01 to 10 wt% (see page 19, 1<sup>st</sup> paragraph), which appears to read on the instantly claimed ranges. WO '799 further teaches the polymer having a weight-average molecular mass of between 10,000 and 90,000 g/mol (see page 17, 1<sup>st</sup> paragraph).

WO '799 further teaches the polymer to be 75:25 PLGA (see page 16, ln. 24; page 35, ln. 7-8). Although the reference does not specifically teach the polydispersity index or the relative dielectric permittivity, since the reference teaches the same polymer, the reference's polymer would inherently have the same properties as those of the presently claimed invention.

### *Claim Rejections - 35 USC § 103*

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO '799 as applied to claims 1 and 10.

WO '799 is as set forth in claims 1 and 10 above and incorporated herein.

WO '799 further teaches that the solvent system is optimal at 0-4°C (see page 28, ln. 13).

Therefore, although the reference does not teach the coacervation temperature being equal to -4°C, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, that the coacervation temperature would have been adjusted to -4°C in order to bring forth maximal benefits attendant therewith. This is because Applicants have not disclosed the advantages of this temperature over other temperatures. And since WO '799 teaches that the coacervation temperature would be optimal at 0-4°C, the coacervation temperature taught by WO '799 would also include temperatures outside 0-4°C.

#### *Response to Arguments*

9. Applicant's arguments filed October 27, 2003 have been fully considered but they are not persuasive.

Throughout the Remarks, Applicants contend that the reference of WO '799 differs from the presently claimed invention because the reference teaches a process of emulsion, not of coacervation. However, WO '799 does teach a coacervation process (see page 23, ln. 17-21).

Therefore, the reference of WO '799 does teach the presently claimed invention.

*Conclusion*

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thao T. Tran whose telephone number is 571-272-1080. The examiner can normally be reached on Monday-Friday, from 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

*Thao Tran*

tt  
January 12, 2004

*[Signature]*  
James J. Seidleck  
Supervisory Patent Examiner  
Art Unit 1711